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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,702	06/23/2003	Kazuto Kobayashi	NUM-0158	5741

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EXAMINER

ALI, MOHAMMAD M

ART UNIT PAPER NUMBER

3744

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/600,702	<b>Applicant(s)</b> KOBAYASHI ET AL.	
	<b>Examiner</b> Mohammad Ali	<b>Art Unit</b> 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota (EP 0691517 A1) in view of Kujirai et al., (5,555,739). Hirota discloses an expansion valve 10 comprising a cassette unit/a unit 15, a housing/casing 11 having a refrigerant path and accommodating the unit 15 via seal 34; wherein the unit 15 comprises a pipe/barrel 38, a refrigerant path formed to the pipe member/barrel 38, a flange member/a large diameter head 38a connected to end of the pipe member/barrel 38, a lid member covering the flange/ large diameter head 38a, a diaphragm 23 disposed between the flange member/large diameter head 38a and the lid member, and a valve mechanism 33/40 for transmitting a displacement of the diaphragm to a valve member 33 so as to control the flow of refrigerant. Hirota also disclose first housing refrigerant path 13 and second housing refrigerant path 12. Hirota discloses the

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invention substantially as claimed as stated above. See Fig. 1 However, Hirota does not disclose a flat flange. Kujirai et al., teach the use of a flat flange 22/24 having a refrigerant entrance path (as shown by arrows) defined by a first pipe 16b and a refrigerant exit path defined by a second pipe 16a, the first and second pipe projecting from a common flat surface of the flange 22/24 and extending parallel to one another the refrigerant entrance hole sized and adapted to receive the first pipe 16b in a sealed manner and the refrigerant exit hole sized and adapted to receive the second pipe 16a in a sealed manner, the flange 22/24 connected to the housing being in face-to-face contact with each other in an expansion valve 20 for the purpose of connecting refrigerant pipes with the expansion valve 20. See Fig. 2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the expansion valve of Hirota in view of Kujirai et al., such that the expansion valve could be provided with a flat flange in order to connect the refrigerant pipes with the expansion valve.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota in view of Kujirai et al., as applied to claim 8 above, and further in view of Thomson et al., (5,269,459). Hirota in view of Kujirai et al., discloses the invention substantially as claimed as stated above. However, Hirota in view of Kujirai et al., does not disclose a seal. Thomson et al., teach the use of a seal 44 in a pipe joint with an expansion valve 10 for the purpose effective pipe joint. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

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expansion valve of Hirota in view of Kujirai et al., and further in view of Thomson et al., such that seal could be provided in order to make an effective pipe joint..


***Response to Arguments***

Applicant's arguments with respect to claims 8-10 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is 703-308-5032. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Esquivel Denise can be reached on 703-308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mohammad M. Ali  
February 7, 2005